

# Letters

CMAJ publishes as many letters as possible. However, since space is limited, choices have to be made, on the basis of content and style; we routinely correspond only with authors of accepted letters. Letters that are clear, concise and convenient to edit (no longer than two double-spaced typescript pages, or 450 words) are more likely to be accepted. Those that are single-spaced, handwritten or longer than 450 words will usually not be published, without comment to the author or return of the letter; nevertheless, we reserve the right to abridge letters that are unduly long or repeat points made in other letters, especially in the same issue, as well as to edit for clarity.

## Cancer caused by radioactive gold rings

Two recent incidents of skin cancer caused by radioactively contaminated gold rings were brought to the attention of the Bureau of Radiation and Medical Devices, Department of National Health and Welfare.

The first incident occurred in Ontario and involved a husband and wife who had bought gold rings in the United States about 30 or 40 years ago. Beta and gamma radiation was measured from both rings. The husband's signet ring delivered a dose of 0.027 cGy (rad) per hour, or about 240 cGy per year. The wife's engagement ring delivered about 74 cGy per year. The husband had a carcinoma below the area of the ring. Previously he had had irritations of the skin underneath the ring, which had been medically treated "with cremes". The wife denied any symptoms from wearing her ring.

The second incident occurred in the Maritimes and concerned a partially radioactive engagement ring bought locally almost 40 years before.<sup>1</sup> The ring delivered a dose of 1.43 cGy per hour, or about 240 cGy per week, to the skin of the finger. The

owner had a squamous cell carcinoma on the base of the finger beneath the ring and skin changes of the middle and little fingers in the areas adjacent to the ring. She too had suffered chronic skin irritations for many years and had been treated for contact dermatitis.

In both cases the radioactivity emitted from the rings was compatible with contamination of gold by decay products of radon. Small hollow goldseeds containing radioactive radon gas were used in the early days of radium therapy for cancer, being inserted directly into the tumour mass. Some of the radioactive gold was manufactured into jewellery in the 1930s and later.

Incidents of skin cancer caused by radioactive gold rings are rare. However, the number of radioactively contaminated gold rings or other gold jewellery owned in Canada is not known.

Physicians alerted to this problem may be able to prevent skin cancer or detect it early. Radiation dermatitis, which usually occurs before carcinoma, mimics contact dermatitis, a much more frequent condition. However, radiation dermatitis tends to persist after removal of the jewellery and tends not to respond well to treatment. If radioactive contamination of gold jewellery is suspected the items

can be tested free of charge by the Atomic Energy Control Board or one of its regional offices.

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## Reference

1. Miller RAW, Aldrich JE: Radioactive gold ring dermatitis. *Am J Dermatol* (in press)

## Parasitology: diagnostic yield of stool examination

Drs. Hélène Senay and Douglas MacPherson argue persuasively that the practice of submitting stool specimens for parasitology in groups of three is outmoded because of improvements in laboratory technique (*Can Med Assoc J* 1989; 140: 1329-1331).

However, I find myself just a little less than totally convinced by the facts on which they have based their conclusion and wonder how completely an essentially laboratory study can be applied to clinical practice. For instance, since only 16% of the stool samples were positive, I